IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Larosa et al.	)
For:	Method of and Apparatus for Activating a Spread-Spectrum Radiotelephone	)
Serial No.:	09/314,819	)
Filed:	May 19, 1999	)
Examiner:	Elallam, A.	)
Art Unit:	2662	)

CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703) 872-9306 on February 28, 2005.

Laurence Q.

February 28, 2005
(Date)

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Attention: Board of Patent Appeals and Interferences

TRANSMITTAL OF APPEAL BRIEF, and
Petition Requesting a Three Month Extension

The Appeal Brief is being filed in furtherance of a Notice of Appeal, filed via facsimile on September 27, 2004. The present filing date of February 28, 2005, for filing the Appeal Brief is within the permissable two month term for filing the brief, extended an additional three months. It is noted, that February 28, 2005, is the first business day after February 27, 2005, which was a Sunday.

In connection with filing the appeal brief, a total fee in the amount of $1,520 is believed to be due including the $500 fee associated with filing an appeal brief, as provided by C.F.R. §41.20(b)(2), and a $1,020 fee associated with requesting a three month extension, as provided by C.F.R. §1.17(a)(3). The undersigned authorizes the Commissioner and respectfully

requests that the fees be charged to deposit account 50-2117 of Motorola, Inc. The Commissioner is further authorized to charge any additional fees deemed to be necessary in connection with the proper handling and consideration of the enclosed appeal brief in support of the appeal from the Examiner's final rejection, as well as any fees associated with any underpayments, and/or credit any overpayments to deposit account 50-2117 of Motorola, Inc.

Respectfully submitted,

BY: _____

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APPELLANTS' BRIEF

This brief is being filed in furtherance of the Notice of Appeal, filed via facsimile transmission on September 27, 2004.

Any fees required under C.F.R. §41.20(b)(2), and any required petition for extension of time for filing this brief and fees therefor, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief contains these items under the following headings, and in the order set forth below (37 C.F.R. § 41.37(c)):

I REAL PARTY IN INTEREST

II RELATED APPEALS AND INTERFERENCES

III STATUS OF CLAIMS

I. REAL PARTY IN INTEREST

The real party in interest in this appeal is Motorola, Inc., a Delaware corporation.

II. RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal, there are no such appeals or interferences.

III. STATUS OF CLAIMS

A. Status of all claims in the proceeding

1. Claims rejected: 1-37
2. Claims allowed: none
3. Claims withdrawn: none
4. Claims objected to: none
5. Claims cancelled: none

B. Identification of claims being appealed

The claims on appeal are: 1-37

IV. STATUS OF AMENDMENTS

A response, dated June 28, 2004, was filed subsequent to the final rejection dated April 30, 2004, however the response did not contain any amendments to the claims. Consequently, no Amendments have been filed subsequent to the final rejection, which would require any clarification as to their status.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The invention pertains to a method and an apparatus for activating a radiotelephone (104) for use in a spread spectrum multiple access radiotelephone system (100) including the activation (page 10, lines 7-16) of a CDMA radiotelephone (104) in a slotted paging mode (Fig. 1), where at least one demodulation branch (122, 124, 126 and/or 128; page 8, lines 22-29) is activated after at least a portion of the searcher receiver (114) is activated (page 11, line 29 to page 12, line 5). In effect, the activation of the at least one demodulation (122, 124, 126 and/or 128) is delayed to a time which is sometime after the at least portion of the searcher receiver (114) is activated, in conjunction with receiving a signal. In the apparatus, the staged activation is managed by control circuitry (116; page 8, line 30 to page 9, line 2), which in at least some embodiments will include a microprocessor (117).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether claims 1-16, 19-22, 28, 29 and 32-35 have been improperly rejected under under 35 U.S.C. 102(e) as being anticipated by Storm et al. (US Patent No. 6,144,649).

2. Whether claim 14 has been improperly rejected under 35 U.S.C. 102(e) as being anticipated by allegedly admitted prior art, in the background section of the present application.

3. Whether claims 17, 18, 23-27, 30, 31, 36 and 37 have been improperly rejected under 35 U.S.C. 103(a) as being unpatentable over Storm et al. (US Patent No.

6,144,649) in view of allegedly admitted prior art, in the background section of the present application.

VII. ARGUMENTS

A. Rejections under 35 U.S.C. 102

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the ... claim. Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

1. Whether claims 1-16, 19-22, 28, 29 and 32-35 have been improperly rejected under under 35 U.S.C. 102(e) as being anticipated by Storm et al. (US Patent No. 6,144,649).

As part of finally rejecting the claims, the Examiner has maintained previously articulated rejections of pending claims 1-37, where 1-16, 19-22, 28, 29 and 32-35 were rejected as being anticipated by Storm et al., US Patent No. 6,144,649. The Examiner has additionally attempted to address applicants' previous remarks in a section entitled response to arguments, however after reviewing the Examiner's remarks, the rejection of the presently pending claims continue to appear to be misplaced.

More specifically, in rejecting the claims, the Examiner attempts to equate the assignment of a finger with the activation of at least one demodulation branch. However, the applicant continues to assert that the assigning of the finger as taught by and/or suggested in the cited reference is not the same as activating at least one demodulation branch, as provided by the claims of the present application. The Examiner's attempt to equate the two is misplaced and without merit. Such a distinction is directly relevant in the present circumstances, because the independent claims of the present application provides for activating at least one demodulation branch after activating the searcher receiver, either directly or indirectly, where in at least some

of the claims, the at least one demodulation branch is activated after a predetermined event, which occurs after the activation of the at least a portion of the searcher receiver. This two staged activation, involving each of the at least a portion of the searcher receiver and the at least one demodulation branch, involves separate activations which occurs at temporally distinct points in time. The cited reference fails to provide for such a teaching.

While the applicant acknowledges that the cited portion of the cited reference addresses assignment of a finger, which the reference expressly identifies as including the slewing of the finger LSGs to bring them into alignment with the pilots and multipath components of interest (col. 9, lines 49-51), the reference is silent as to the temporal relationship of the activation of the at least one fingers (regardless as to whether it includes one or all of the fingers), relative to the activation of the portion of the circuitry involving the searcher receiver. The claim requires that the two be activated at temporally distinct points in time, the reference includes no such teaching and/or suggestion.

The Examiner makes a troubling leap of logic in the Examiner's response to applicants' arguments, which is not supported by any identified statement or fact. Specifically, the Examiner asserts in the Official Action made final, that assigning the branch **precedes** the activation, which he then later attempted to clarify as part of an advisory action. The Examiner's clarification now acknowledges that an activation occurs before an assignment. However, the fact that an assignment of a finger might occur after both the activation of a searcher receiver and after the activation of a finger still says nothing regarding whether the activation of a searcher receiver occurs before or after the activation of a finger. In essence, the reference is silent as to at least this aspect of the claims, and consequently can not be said to make known each and every feature of the claims.

The examiner appears to be confused about the use of a third event (i.e. a predetermined event), in describing the temporal relationship of the activation of the at least one demodulation branch relative to the activation of the at least portion of the searcher receiver. The applicants acknowledge that the term predetermined event is quite broad and could be satisfied by many different types of events, but more importantly, the claims still establish that the activation of the at least one demodulation branch occurs after the activation of the at least portion of the searcher

receiver, where a predetermined event happens to occur between the two. The predetermined event then can be more specifically defined as part of a more specific dependant claim, such as claim 3, where the predetermined event is identified, relative to at least some embodiments of the present invention, as comprising aquiring a PN sequence timing of a pilot signal that produces a correlation energy above a predetermined threshold.

In reviewing a portion of the text of the present application, which starts at page 11, line 28, and continues through page 12, line 5, it becomes clear that activation in at least one preferred embodiment involves the selective application of a clock signal to the various distinct circuit elements, which is consistent with migrating the circuit elements between a lower power sleep-type state (i.e. inactive state), and a higher power non sleep-type state (i.e. an active state) (see page 11, lines 13-18), and thereby allowing for certain enhanced power savings features, which in absence of at least some aspects of the present invention may not be possible.

Because the Examiner has failed to address the previously identified deficiency of the alleged teaching of the cited references relative to the claims, in so far as the cited references are silent as to the temporally distinct activation of analogous circuit elements, wherein the activation of correspondingly claimed circuit elements occurs after the activation of other distinct claimed circuit elements, the Examiner has failed to show how the reference teaches each and every limitation of the claim, which is minimally required in support of rejection based upon anticipation and/or obviousness.

Each of the independent claims, and correspondingly each of the dependent claims, similarly provides for the temporally distinctive activation of corresponding circuit elements, with one occurring after the other, in a manner, which has yet to be shown as being previously known or obvious in view of the teaching of any prior reference. Consequently the applicants would contend, that the claims are allowable over the prior art of record for the reasons noted. The applicants would request that the Examiner conclusion of final rejection of the claims be overturned in view of the above noted reasons. Allowance of the application is respectfully requested.

2. Whether claim 14 has been improperly rejected under 35 U.S.C. 102(e) as being anticipated by allegedly admitted prior art, in the background section of the present application.

The Examiner has additionally attempted to suggest that claim 14 is anticipated by the allegedly admitted prior art, in the background section of the present application, but similar to the reasons noted above, the Examiner has failed to account for each and every feature of the claim as being taught or made known by the alleged prior teaching. More specifically, claim 14 includes "control circuitry to periodically activate the at least one demodulation branch after each periodic activation of the searcher receiver ...". Such a feature has not been correctly identified as being part of any prior teaching from a reference or any alleged prior teaching identified and/or associated with the background section of the present application. Consequently, the Examiner's alleged anticipation can not be supported. Reconsideration of the Examiner's rejection and a determination of allowability of the claim is respectfully requested.

B. Rejections under 35 U.S.C. 103

The Federal Circuit has repeatedly emphasized that, with respect to obviousness, the standard for patentability is the statutory standard. The inquiry is whether the claimed subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art. In this regard, see for example, Monarch Knitting Machinery Corp. v. Saulzer Maurat GMBH, 139 F.3d 877, 881, 45 USPQ2d 1977, 1981 (Fed. Cir. 1998).

For purposes of formulating an obviousness type rejection, the Patent and Trademark Office (PTO) has the initial burden of presenting a prima facie case. In re Mayne, 104 F.3d 1339, 1341, 41 USPQ2d 1451 (Fed. Cir. 1997). In order to establish a prima facie case of obviousness, it must be shown that the prior art reference, or references when combined, teach or suggest all of the claim limitations. Pro-Mold and Tool Co. v. Great Lakes Plastics Inc., 75 F.3d 1568, 37 USPQ2d 1626, 1629 (Fed. Cir. 1996), In re Royka, 490 F.2d 981, 180 USPQ 580, 583 (CCPA 1974). Furthermore, the showing of a suggestion, teaching, or motivation to combine prior teachings "must be clear and particular." In re Dembiczak, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999). These requirements are consistent with the Patent and

Trademark Office's own examination guidelines governing the formation of obvious type rejections, see MPEP §2142.

3. Whether claims 17, 18, 23-27, 30, 31, 36 and 37 have been improperly rejected under 35 U.S.C. 103(a) as being unpatentable over Storm et al. (US Patent No. 6,144,649) in view of allegedly admitted prior art, in the background section of the present application.

Relative to claims 17, 18, 23-27, 30, 31, 36 and 37, a combination of teachings have not been alleged, which together make known or obvious each and every feature of the claims. It is specifically noted that the base support relied upon by the Examiner in support of the rejection is the same reference, namely Storm et al., US Patent No. 6,144,649, relied upon above in connection with the Examiner's anticipation rejection with respect to claims 1-16, 19-22, 28, 29 and 32-35. The same deficiencies, noted above, similarly apply to the present set of claims, where a majority of the claims depend upon rejected claims noted above, where claim 36 and corresponding dependent claim 37 are the exception. However, claim 36, and indirectly claim 37, similarly provides for the distinct temporal activation of the at least portion of the searcher receiver relative to the at least one demodulation branch (as well as the system timing unit), where the at least one demodulation branch (as well as the system timing unit) are activated after the step of slewing, where the step of slewing is associated with an already activated at least portion of a searcher receiver. Consequently, similar to the reasons noted above, the Examiner has failed to show that each and every feature of the claims is made known or obvious in view of the allegedly combined teachings. As a result, the rejection articulated by the Examiner can not be supported.

In view of the above analysis, the applicants would assert, that the Examiner has failed to establish that any of the cited references either separately or in combination make known or obvious any of the presently pending claims. The applicants would respectfully request that the Examiner's decision to finally reject the presently pending claims be overturned, and that the claims be permitted to proceed to allowance.

Respectfully submitted,

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IX APPENDIX OF CLAIMS

The following is the text of the claims involved in this appeal:

1. A method of activating a radiotelephone operable in a spread-spectrum multiple access radiotelephone system, the method comprising the steps of:

activating at least a portion of a searcher receiver;

receiving a transmitted signal; and

activating at least one demodulation branch after a predetermined event occurs, the predetermined event occurring after activating at least a portion of the searcher receiver.

2. The method of claim 1 wherein the transmitted signal comprises at least one pilot signal that is spread by a pseudorandom (PN) sequence.

3. The method of claim 2 wherein the predetermined event comprises acquiring a PN sequence timing of a pilot signal that produces a correlation energy above a predetermined threshold.

4. The method of claim 3 further comprising synchronizing the at least one demodulation branch to the at least a portion of the searcher receiver after activating the at least one demodulation branch.

5. The method of claim 4 further comprising:

activating a system timing unit after acquiring the PN sequence timing; and

synchronizing the system timing unit to the at least one demodulation branch after synchronizing the at least one demodulation branch.

6. The method of claim 5 wherein synchronizing the system timing unit occurs at a predetermined PN chip boundary of the PN sequence, the predetermined PN chip boundary denoting less than a full length of the PN sequence.

7. The method of claim 6 wherein synchronizing the system timing unit comprises loading state information into the system timing unit, the state information including a state of a PN roll count and a state of a PN position count.

8. A method of activating a radiotelephone operating in a slotted paging mode, the radiotelephone operable in a code division multiple access (CDMA) radiotelephone system, the method comprising, in combination:

activating a searcher receiver;

detecting a pilot signal;

acquiring a PN sequence timing related to a PN sequence associated with the pilot signal;

activating at least one demodulation branch after activating the searcher receiver; and

synchronizing the at least one demodulation branch to the searcher receiver.

9. The method of claim 8 further comprising:

activating a system timing unit after activating the searcher receiver; and

synchronizing the system timing unit relative to the at least one demodulation branch after synchronizing the at least one demodulation branch.

10. The method of claim 9 wherein synchronizing the system timing unit occurs at a predetermined PN chip boundary of the PN sequence, the predetermined PN chip boundary denoting less than a full length of the PN sequence.

11. The method of claim 10 wherein synchronizing the at least one demodulation branch to the searcher receiver comprises:

synchronizing a branch timing unit to the searcher receiver; and

loading state information from the searcher receiver into the at least one demodulation branch.

12. The method of claim 11 further comprising decoding an information signal with the at least one demodulation branch after synchronizing the system timing unit.

13. The method of claim 8 wherein the at least one demodulation branch is activated after acquiring the PN sequence timing related to the PN sequence associated with the pilot signal.

14. An apparatus for operating a code division multiple access (CDMA) radiotelephone in a slotted paging mode, the apparatus comprising:

a searcher receiver periodically activated to find a pilot signal of suitable signal strength, the searcher receiver acquiring a pseudorandom noise (PN) sequence timing of the pilot signal after each periodic activation of the searcher receiver;

at least one demodulation branch coupled to the searcher receiver; and

control circuitry to periodically activate the at least one demodulation branch after each periodic activation of the searcher receiver and to direct the at least one demodulation branch to synchronize relative to the searcher receiver after each periodic acquiring of the PN sequence timing.

15. The apparatus of claim 14 further comprising a system timing unit coupled to the at least one demodulation branch, the control circuitry periodically activating the system timing unit substantially after each periodic activation of the searcher receiver, the control circuitry directing the system timing unit to synchronize relative to the PN sequence timing of the pilot signal after each periodic synchronization of the at least one demodulation branch.

16. The apparatus of claim 15 wherein the control circuitry comprises a microprocessor.

17. The apparatus of claim 16, wherein the system timing unit synchronizes relative to the PN sequence timing of the pilot signal by receiving PN state information from the at least one demodulation branch.

18. The apparatus of claim 17 wherein the system timing unit synchronizes at a predetermined PN chip boundary that occurs more frequently than a PN roll boundary.

19. The apparatus of claim 14 further comprising a real-time PN generator coupled to the searcher receiver.

20. The apparatus of claim 19 further comprising:

a receiver sample buffer coupled to the searcher receiver, the receiver sample buffer for storing samples of detected pilot signals; and

a high-speed PN generator for searching the stored samples for a pilot signal and associated pilot signal PN timing that produces a correlation energy above a predetermined threshold.

21. A method of activating a code division multiple access (CDMA) radiotelephone operating in a slotted paging mode of a CDMA cellular telephone system, the method comprising the steps of:

activating a searcher receiver;

acquiring, with the searcher receiver, a pseudo-random noise (PN) sequence timing of a PN sequence associated with a pilot signal; and

activating at least one demodulation branch after activating the searcher receiver.

22. The method of claim 21 wherein the at least one demodulation branch is activated after acquiring the PN sequence timing of the pilot signal.

23. The method of claim 22 further comprising:

slewing a PN timing of the searcher receiver to the PN sequence timing of the pilot signal; and

synchronizing the at least one demodulation branch to the PN timing of the searcher receiver after slewing the PN timing of the searcher receiver.

24. The method of claim 23 wherein synchronizing the at least one demodulation branch comprises parallel loading PN state information from the searcher receiver into the at least one demodulation branch.

25. The method of claim 23 further comprising:

activating a system timing unit after activation of the searcher receiver; and

synchronizing the system timing unit to the at least one demodulation branch after slewing the PN timing of the searcher receiver.

26. The method of claim 25 wherein synchronizing the system timing unit occurs at a predetermined PN chip boundary within the PN sequence of the pilot signal, the predetermined PN chip boundary being less than a full length of the PN sequence of the pilot signal.

27. The method of claim 22 further comprising synchronizing the at least one demodulation branch to the searcher receiver after activating the at least one demodulation branch.

28. The method of claim 22 further comprising synchronizing the at least one demodulation branch to the searcher receiver after acquiring the PN sequence timing of the PN sequence associated with the pilot signal.

29. The method of claim 28 further comprising slewing the at least one demodulation branch to the PN sequence timing of the PN sequence associated with the pilot signal.

30. The method of claim 29 further comprising:

activating a system timing unit after activation of the searcher receiver; and

synchronizing the system timing unit to the PN sequence timing of the PN sequence associated with the pilot signal after slewing the at least one demodulation branch.

31. The method of claim 30 wherein synchronizing the system timing unit comprises loading state information representative of the PN sequence timing into the system timing unit.

32. The method of claim 21, wherein acquiring the PN sequence timing with the searcher receiver comprises:

storing samples of a plurality of detected pilot signals at a first rate; and

searching at a second rate the stored samples to find the PN sequence timing of the pilot signal that produces a correlation energy above a predetermined threshold, the second rate being a higher speed than the first rate.

33. A method of activating a radiotelephone during slotted paging mode operation, the radiotelephone operable in a code division multiple access radiotelephone system, the method comprising, in combination:

activating a searcher receiver;

detecting a pilot signal that produces a correlation energy above a predetermined threshold;

acquiring a PN sequence timing of the pilot signal with the searcher receiver;

activating a system timing unit after acquiring the PN sequence timing of the pilot signal;

activating at least one demodulation branch after acquiring the PN sequence timing of the pilot signal;

synchronizing the at least one demodulation branch to the PN sequence timing of the pilot signal after acquiring the PN sequence timing; and

synchronizing the system timing unit to the PN sequence timing of the pilot signal after synchronizing the at least one demodulation branch.

34. The method of claim 33 wherein synchronizing the system timing unit occurs at a predetermined PN chip boundary of a PN sequence of the pilot signal, the predetermined PN chip boundary being less than a full length of the PN sequence.

35. The method of claim 33 wherein synchronizing the at least one demodulation branch comprises loading state information from the searcher receiver into the at least one demodulation branch and into a branch timing unit.

36. A method of activating a radiotelephone in a slotted paging mode, the radiotelephone operable in a code division multiple access (CDMA) radiotelephone system, the method comprising the steps of:

programming a pseudorandom noise (PN) sequence awake state;

activating at least a portion of a searcher receiver;

loading the PN sequence awake state;

incrementing at a first rate the PN sequence awake state to generate a local PN sequence;

detecting at least one pilot signal having an associated PN sequence;

storing digital samples of the at least one pilot signal at the first rate;

searching at a second rate for a pilot signal and an associated PN sequence phase that produces a correlation energy above a predetermined threshold, the second rate faster than the first rate;

slewing the local PN sequence to the PN sequence phase associated with the pilot signal;

activating a system timing unit after the step of slewing;

activating at least one demodulation branch after the step of slewing;

synchronizing a PN timing of the at least one demodulation branch to the PN sequence phase associated with the pilot signal after the step of slewing; and

synchronizing a PN timing of the system timing unit to the PN sequence phase associated with the pilot signal after the step of synchronizing the PN timing of the at least one demodulation branch.

37. The method of claim 36 wherein the step of synchronizing the PN timing of the system timing unit occurs at a predetermined PN chip boundary that is less than a PN roll boundary of the PN sequence associated with the pilot signal.